

Tue Jul 13 08:26:43 1999

Example: Pages 63-64; 95pp; English. The present sequence was used in the development of a novel method for the identification of a patient's previous sensitisation to *Borrelia burgdorferi* sensu lato outer surface protein C (OspC). The method comprises reacting immunoglobulin (Ig) or T cells from the patient with a polypeptide of at most 60 amino acids containing a peptide with at least 5 amino acids. The sequence W41821, or its subsequences of at least 5 amino acids, the degree of immunological reactivity between the polypeptide and Ig or T cells is measured and significant reactivity is indicative of sensitisation.

The method can be used to diagnose Lyme disease and is based on reactivity with antibodies against the OspC protein. The test can be done in vitro or in vivo, e.g. as a skin test. Vaccine reactivity with antibodies against the polypeptide can be used to protect humans and other animals against *B. burgdorferi* infection. The polypeptide provides higher sensitivity than full-length OspC, and so is better at detecting infection in its early stages, especially when combined with the known assay for flagellar proteins. The seven carboxy-terminal residues of W41821 represent an epitope essential for human immune response to OspC. The polypeptide is also easier to prepare and purify than (nearly) full-length protein, facilitating standardisation of the assay, and is less cross-reactive with antibodies raised against other antigens. The small size of the polypeptide allows a high density of binding sites to be created on a solid support. Incorporation of non-natural amino acid into the polypeptide increases its resistance to peptidases when used in vivo.

Query Match 4.8%; Score 8; DB 28; Length 212; Pred. No. 6.48e-01; Mismatches 0; Indels 0; Gaps 0; Sequence 212 AA;

Best Local Similarity 100.0%; Matches 8; Conservative 0; Indels 0; Gaps 0;

Db 143 ghadlgkq 150
Oy 121 GHADLGKQ 128

Query Match 4.8%; Score 8; DB 17; Length 212; Pred. No. 6.48e-01; Mismatches 0; Indels 0; Gaps 0; Sequence 212 AA;

Best Local Similarity 100.0%; Matches 8; Conservative 0; Indels 0; Gaps 0;

Db 143 ghadlgkq 150
Oy 121 GHADLGKQ 128

RESULT 9
ID R5729 standard; Protein; 212 AA.
AC R75729; (first entry)
DT 31-JUL-1996
DE *B. burgdorferi* strain Pko (OspC; antigenic domain; Strain Pko; outer surface protein; OspC; antigenic domain; chimeraic protein; treatment; diagnosis; infection; vaccine; Lyme borreliosis; immunodiagnostic assay; antibody; T-cell reactivity; chimeric. *Borrelia burgdorferi*.
KW OS W0951267-A1.
PD 11-MAY-1994; U12352.
PP 27-NOV-1993; US-148191.
PR 29-APR-1994; US-23536.
PA (ASUR-) ASSOC UNIVERSITIES INC.
PI Dunn JJ, Lutrf BJ.
DR WPI: 95-215034/28.
N-PSDB; 090715.
PT Chimeric protein comprising 2 or more antigenic *Borrelia* surface protein C (OspC-Pko). Using chemical or enzymatic methods, peptide fragments of OspC-Pko were prep'd, and analysed by western blot to assess their ability to bind different anti-OspC monoclonal antibodies. The information obt'd. was used to locate antigenic domains in OspC-Pko, the epitopes of which were mapped onto a selection of Osp purified from a variety of *B. burgdorferi* strains, the results from which were utilised in the prep'n. of a pool of antigenic *Borrelia* polypeptides, and corresponding

CC *Borrelia* polypeptides, that do not naturally occur in the same protein, can be used in the treatment and diagnosis of *Borrelia* infections, i.e. as a vaccine against Lyme borreliosis, in immunodiagnostic assays to detect anti-*Borrelia* antibodies or to measure T-cell reactivity.

CC Sequence 212 AA;

CC Query Match 4.8%; Score 8; DB 17; Length 212; Pred. No. 6.48e-01; Mismatches 0; Indels 0; Gaps 0; Sequence 212 AA;

CC Best Local Similarity 100.0%; Matches 8; Conservative 0; Indels 0; Gaps 0;

Db 143 ghadlgkq 150
Oy 121 GHADLGKQ 128

RESULT 9
ID R13140 standard; Protein; 212 AA.
AC R13140; (first entry)
DT 27-SEP-1991
DE *B. burgdorferi* strain Pko pc Protein; Lyme borreliosis; vaccine; flagellin.
KW OS W09109870-A.
PN 11-JUL-1991.
PF 22-DEC-1989; DE-942728.
PR 13-JUN-1990; DE-018988.
PA (MIKR-) MIKROGEN MOLEKULARE.
PI Fuchs R, Wilske B, Preac-Mursic V, Motz M, Soutschek E; DR WPI: 91-22284/30.
PT New *Borrelia burgdorferi* Proteins - useful as immunoassay reagents and antigens for vaccine prodn.
PS N-PSDB; Q12746.

CC Protein PC (22KD) was isolated from a *B. burgdorferi* cell lysate and digested with trypsin. The amino acid sequence of two tryptic fragments was determined. Probe pools corresponding to each CC fragment were synthesised and used to screen a *B. burgdorferi* cDNA library. A clone contg. the 639 nucleotides of the pc coding CC sequence was identified and sequenced. The amino acid derived CC from the pc gene is reproduced here. Decoding the 639 base pc gene, however, gives a different amino acid sequence with Thr(29)-Ser(37), CC inclusive, replaced by Histidile. For this sequence to be directly CC decoded from Q12748, an A residue must be inserted between G(84) and C(85) of the nucleotide sequence and T(111) must be deleted. CC See 012744-012741, Q13297-8 and R13139-R13112.
Sequence 212 AA;

Query Match 4.8%; Score 8; DB 3; Length 212; Pred. No. 6.48e-01; Mismatches 0; Indels 0; Gaps 0; Sequence 212 AA;

Best Local Similarity 100.0%; Matches 8; Conservative 0; Indels 0; Gaps 0;

Db 143 ghadlgkq 150
Oy 121 GHADLGKQ 128

RESULT 10
ID R62779 standard; Protein; 177 AA.
AC R62779; (first entry)
DT 25-MAY-1995
DE *Borrelia* acal antigen vaccine; borreliosis; immunogen; OspC antigen; vaccine; Lyme disease; borreliosis; immunogen; KW RFLP; *Pichia pastoris*.
OS *Borrelia burgdorferi* ACAL.
PN W09425596-A.
PD 10-NOV-1994.
PR 29-APR-1994; E01365.
PA (IMMO) IMMUNO AG.
PI Crowe B, Dorner F, Livey I;

QY 17 LSSLLA 23

RESULT 14
ID W00366 standard; Protein; 639 AA.

AC W00366; (first entry)

DT 18-FEB-1997 (first entry)

DE Streptomyces lacto-N-biosidase.

KW Lacto-N-biosidase; glycosylation; sugar chain.

OS Streptomyces sp. 142 (FERM BP-4559).

PN EP-739983-A2.

PD 30-OCT-1996.

PF 25-APR-1996; 106569.

PR 27-APR-1995; JP-199731.

PA (TAKI) TAKARA SHIZU CO LTD.

PI Kato I; Mitta M; Sano M;

DR WPI; 96-478747/48.

DR N-FSDB; T41776.

PT Streptomyces lacto-N-biosidase DNA - for prodn. of recombinant lacto-N-biosidase for determination of sugar chain structure and function

PS Claim 1; Page 13-15; 27PP; English.

CC Streptomyces sp. 142 lacto-N-biosidase (W00366) is capable of specifically acting on a sugar chain having the structure Gal beta-1-3GlcNAc beta-1-R (R is a sugar residue), and specifically catalysing the hydrolysis of the lacto-N-bioside bond only. It is useful for studying the structure and biological activity of sugar chains, esp. in cell surface glycoproteins and glycolipids. Large-scale, low cost prodn. of the enzyme in transformed host cells is possible using a gene sequence (T41776) isolated from a genomic library of Streptomyces sp. 142.

SO Sequence 639 AA.

Query Match 4.2%; Score 7; DB 20; Length 639;

Best Local Similarity 100.0%; Pred. No. 1.03e+01; Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 389 ssllaeg 395

Qy 19 SSLLAEG 25

RESULT 15
ID W34153 standard; Peptide; 16 AA.

AC W34153; (first entry)

DT 26-FEB-1998 (first entry)

DE HIV-2 peptide fragment #1.

KW Human T-cell leukaemia virus; HTLV; gp46; envelope protein; diagnosis;

KW immunoassay reagent; antibody detection; adult T-cell leukaemia; lymphoma;

KW infection prevention; adult T-cell leukaemia; lymphoma;

OS Human immunodeficiency virus type 2.

FH Key Location/Qualifiers

FT Misc_difference 15 /note= "optionally amidated"

FT US5681695-A.

PD 28-OCT-1997; 001885.

PR 09-JAN-1987; 001885.

PR 22-JUN-1992; US-901874.

PR 09-JAN-1987; US-001885.

PR 13-JAN-1989; US-297635.

PR 24-JAN-1990; US-469291.

PR 01-JUN-1995; US-457865.

PA (UNBI) UNITED BIOMEDICAL INC.

PI Wang CY; WPI: 97-535047/49.

PT HTLV Peptide(s) - useful as immunoassay reagents for diagnosis of adult T-cell leukaemia

PS Disclosure; Column 8; 24PP; English.

CC W34150-W34153 represent Fragments of HIV-I and HIV-II. These sequences are analogous to the peptides of the invention. The peptides of the invention (see W3418-W34149) are fragments of HTLV-I (human T-cell lymphotropic virus I) and HTLV-II, and analogues of these fragments.

CC Human T-cell lymphotropic virus is also known as human T-cell leukaemia

CC virus. The HTLV sequences represent peptides of the invention, and have an optionally amidated C-terminus. The HTLV peptides may be used as immunoassay reagents for detecting antibodies to HTLV-I/HTLV-II in the diagnosis of adult T-cell leukaemia/lymphoma (ATL). The HTLV peptides can also be used to prevent HTLV infection.

CC Sequence 16 AA;

CC

Query Match 3.6%; Score 6; DB 25; Length 16;

Best Local Similarity 100.0%; Pred. No. 1.37e+02; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 2 garlns 7

Qy 38 QARLNS 43

RESULT 16
ID R87551 standard; peptide; 16 AA.

AC R87551; (first entry)

DT 10-JUL-1996 (first entry)

DE Peptide #12 for the detection of HTLV-I and HTLV-II antibodies.

KW Immunnoassay; antibody; human T-cell leukaemia virus; HTLV; HTLV-I; HIV-1; HTLV-II; adult T-cell leukaemia; Leukaemia; HIV-2.

OS Synthetic.

FH Key Location/Qualifiers

FT modified_site 16 /note= "optionally amidated"

FT PN US5476765-A.

PD 19-DEC-1995.

PR 22-JUN-1992; 901874.

PR 09-JAN-1987; US-001885.

PR 13-JAN-1989; US-297635.

PR 24-JAN-1990; US-469291.

PR 22-JUN-1992; US-901874.

PA (UNBI) UNITED BIOMEDICAL INC.

PI Wang CY; WPI: 96-049878/05.

PT Detecting and distinguishing between antibodies for HTLV-I and -II using an assay utilising synthetic peptide(s), for the diagnosis of

PT adult T-cell leukaemia

PS Claim 21; Column 36; 28PP; English.

CC R87540-R87550 represent synthetic peptides used in the scope of the invention, to coat a solid support used in an immunoassay for detecting

CC antibodies to human T-cell leukaemia viruses (HTLV), and diagnosis of adult T-cell leukaemia. A test sample where HTLV-I and HTLV-II

CC antibodies form a complex with the peptide used, is added to the solid support. The mixture is then incubated and the complex detected. The

CC immunoassay can be used to detect HTLV-I and HTLV-II, and to distinguish between antibodies for each of these viruses. It can also be used for the diagnosis of cell leukaemia. This method eliminates false positives,

CC and has an increased specificity and higher sensitivity than current methods. This method can also be used to detect HIV-1 and HIV-2

CC antibodies. This method can also be used to detect HTLV-I and HTLV-II

CC Sequence 16 AA;

Query Match 3.5%; Score 6; DB 17; Length 16;

Best Local Similarity 100.0%; Pred. No. 1.37e+02; Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 2 garlns 7

Qy 38 QARLNS 43

RESULT 17
ID R06326 standard; peptide; 19 AA.

AC R06326; (first entry)

DT 13-DEC-1990 (first entry)

DE Biotinylated monomeric peptide.

KW HIV-2; streptavidin; cyclic.

OS synthetic.

FH Key Location/Qualifiers

FT misc_difference 1..1

QY	17	ISSLLA 23
RESULT	14	
ID	W00366	standard; Protein: 639 AA.
AC	W00366;	
DT	18-FEB-1997	(first entry)
DE	Streptomyces	lacto-N-biosidase.
KW	Lacto-N-biosidase; glycosidase; sugar chain.	
OS	Streptomyces sp. 142 (FERM BP-4565).	
PN	EP-739983-A2.	
PD	30-OCT-1996	
PF	25-APR-1995; 106569.	
PR	27-APR-1995; JP-129731.	
PA	(TAKI) TAKARA SHUZO CO LTD.	
PI	Kato I, Mitta M, Sano M;	
DR	WPI; 96-478741/48.	
PT	Strreptomyces lacto-N-biosidase DNA - for prodn. of recombinant lacto-N-biosidase for determination of sugar chain structure and function	
CC	Claim 1; Page 13-15; 27PP; English.	
CC	Streptomyces sp. 142 lacto-N-biosidase (W00366) is capable of specifically acting on a sugar chain having the structure Gal beta1-3GlcNAc beta1-R (R is a sugar residue), and specifically catalysing the hydrolysis of the lacto-N-bioside bond only. It is useful for studying the structure and biological activity of sugar chains, esp. in cell surface glycoproteins and glycolipids. Large-scale, low cost prodn. of the enzyme in transformed host cells is possible using a gene sequence (T41776) isolated from a genomic library of Streptomyces sp. 142.	
SQ	Sequence 639 AA:	
Query Match	4.2%; Score 7; DB 20; Length 639;	
Best Local Similarity	100.0%; Pred. No. 1:03e-01;	
Matches	0; Mismatches 0; Indels 0; Gaps 0;	
Db	389 ssllaeg 395	
Qy	19 SSLLAEG 25	
RESULT	15	
ID	W34153	standard; peptide: 16 AA.
AC	W34153;	
DT	26-FEB-1998	(first entry)
DE	HIV-2 peptide fragment #1.	
KW	Human T-cell leukaemia virus; HTLV; gp46; envelope protein; diagnosis; immunassay reagent; antibody detection; adult T-cell leukaemia-lymphoma; ATLL; infection prevention.	
OS	Human immunodeficiency virus type 2.	
FH	Key Location/Qualifiers	
FT	Misc_difference 16 /note= "optionally amidated"	
FT	US5581696 A.	
FT	28-OCT-1997.	
FT	09-JAN-1987; 001885.	
PR	22-JUN-1992; US-901874.	
PR	09-JUN-1987; US-001885.	
PR	13-JAN-1989; US-291635.	
PR	24-JAN-1990; US-469291.	
PR	01-JUN-1995; US-457865.	
PA	(UNIBI-) UNITED BIOMEDICAL INC.	
PI	Wang CY;	
DR	WPI; 96-045978/05.	
PT	Detecting and distinguishing between antibodies for HTLV-I and -II using an assay utilising synthetic peptide(s), for the diagnosis of adult T-cell leukaemia.	
PT	Claim 21; Column 36; 28PP; English.	
CC	R87540-R87558 represent synthetic peptides used in the scope of the invention, to coat a solid support used in an immunoassay for detecting antibodies to human T-cell leukaemia viruses (HTLV), and diagnosis of adult T-cell leukaemia. A test sample where HTLV-I and HTLV-II antibodies form a complex with the peptide used, is added to the solid support. The mixture is then incubated and the complex detected. The immunoassay can be used to detect HTLV-I and HTLV-II, and to distinguish between antibodies for each of these viruses. It can also be used for the diagnosis of cell leukaemia. This method eliminates false positives, and has an increased specificity and higher sensitivity than current methods. This method can also be used to detect HTV-1 and HTV-2 antibodies. This method can also be used to detect HTV-1 and HTV-2 antibodies. Sequence 16 AA:	
SQ	Sequence 16 AA:	
Query Match	3.6%; Score 6; DB 17; Length 16;	
Best Local Similarity	100.0%; Pred. No. 1.37e+02;	
Matches	0; Mismatches 0; Indels 0; Gaps 0;	
Db	2 qarlns 7	
Qy	38 QARLNS 43	
RESULT	17	
ID	R06326	standard; peptide; 19 AA.
AC	R06326;	
DT	13-DEC-1990	(first entry)
DE	Biotinylated monomeric Peptide.	
KW	HTV-2; streptavidin; cyclic.	
CC	virus. The HTLV sequences represent peptides of the invention, and have an optionally amidated C-terminus. The HTLV peptides may be used as immunoassay reagents for detecting antibodies to HTLV-I/HTLV-II in the diagnosis of adult T-cell leukaemia-lymphoma (ATL). The HTLV peptides can also be used to prevent HTLV infection.	
CC	Sequence 16 AA:	
Query Match	3.6%; Score 6; DB 25; Length 16;	
Best Local Similarity	100.0%; Pred. No. 1.37e+02;	
Matches	0; Mismatches 0; Indels 0; Gaps 0;	
Db	2 qarlns 7	
Qy	38 QARLNS 43	

FT /label-Lys, Orn, Acp, Abu
 FT /note- "Lys-N-epsilon-biotinyllysine or N-epsilon-
 FT (biotinylaminoacaproyl)lysine; Orn-N-delta-
 FT biotinylornithine or N-delta-(biotinylamino-
 FT caproyl)ornithine; Acp and Abu= biotinylated"
 PN DE3901857-A.
 PD 26-JUL-1990.
 PR 23-JAN-1989; 901857.
 (BOEP) Boehringer Mannheim GMBH.
 PI Klein C, Bayer H;
 DR WPI; 90-232329/31.
 PT Sensitive immunoassay of HIV-2 antibodies with low blank values -
 PT by incubating sample in streptavidin coated tube with biotinylated
 PT cyclic peptide and labelled antibody receptor.
 PS Claim 3; Page 4; 4pp; German.
 CC This peptide is used in a sensitive immunoassay of HIV-2 antibodies
 with low blank values. The nucleic acid sample is incubated, in a
 streptavidin coated tube, with this biotinylated cyclic peptide and
 a labelled receptor directed against the antibodies. The liq. and
 solid phases are sepd. and the amt. of label in one of them is
 measured. One or more of residues 2-4 can be absent.
 CC See also R07508.
 SQ Sequence 19 AA;

Query Match 3.6%; Score 6; DB 2; Length 19;
 Best Local Similarity 100.0%; Pred. No. 1.37e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 PT Pred. No. 1.37e+02;
 PS 0; Mismatches 0; Indels 0; Gaps 0;
 CC 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 18
 ID W35484 standard; peptide; 20 AA.
 AC W35484;
 DT 22-APR-1998 (first entry)
 DB 2 garins 7
 KW HIV peptide from HIV gp36 Peptide SEQ ID NO:28.
 KW T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
 KW scaffold; inhibition; metastasis; wound healing; solid phase.
 OS Human immunodeficiency virus type 1.
 PN W09738011-A1.
 PD 16-OCT-1997.
 PF 03-APR-1997; D00146.
 PR 03-APR-1996; DR-000398.
 PA (PepER-) PEPRSEARCH AS.
 PI Heegaard PMH; Jakobsen PH;
 DR WPI; 97-512645/47.
 PT Non-dendritic peptide carrier linked to a solid phase - useful as a
 PT diagnostic agent and as a scaffold for production of chemical
 PT derivatives
 PS Example 5; Page 89; 26pp; English.
 A non-dendritic peptide carrier (A) has been developed which is coupled
 through a linker to a solid phase, forming a complex of (A)-solid phase.
 Where (A) comprises 10-50 amino acids capable of forming a secondary
 structure in a benign buffer after liberation from the solid phase, and
 further the (A)-solid phase complex comprises an immunogenic substance
 and/or an immune mediator coupled on (A). The present sequence
 represents a peptide used in an example from the present invention. An
 (A)-solid phase complex can be used as a scaffold for the production of
 chemical derivatives, characterised by covalently attaching molecules at
 attachment points. Alternatively (A) is used as a scaffold-peptide for
 the incorporation into an immunostimulating complex, (Iscom), resulting in
 (A)-Iscom complex which is used for the chemical coupling of antigenic
 substances in an aqueous solution by conjugation. (A) derivatised with
 one or more peptides having fibronectin-, laminin- or vitronectin-like
 binding activities can be used for the promotion of cell-attachment to
 plastic surfaces, in particular to inhibit tumour growth and metastasis,
 and for promotion of wound healing. Also a derivatised (A) can be used
 for the selection of specifically-binding aptamers or as a diagnostic
 agent. Such diagnostic-(A) molecules could be used to detect molecules
 derived from or indicative of pregnancy or of a disease, such as an

RESULT 19
 ID R05154 standard; protein; 20 AA.
 AC R05154;
 DT 09-OCT-1990 (first entry)
 DE Fusion Protein epitopic for gp41 glycoprotein of HIV-2.
 KW HIV; AIDS; gp41; p24; vaccine.
 OS Synthetic.
 PN EP-371817-A.
 PD 6-JUN-1990.
 PF 30-NOV-1989; 312513.
 PR 1-DEC-1988; GB-028097.
 PA (WELL) Wellcome Foundation Ltd.
 PI Duncan RJS;
 DR WPI; 90-173162/23.
 PT New peptide(s) which bind to antibody specific for HIV -
 derived from portion of immuno-dominant epitope on the gp41
 glycoprotein of HIV.
 PS Disclosure; PR; English.
 CC Fusion protein may be used to make test kits for both HIV-1 and
 CC HIV-2 antibodies or antigens.
 SQ Sequence 20 AA;

Query Match 3.6%; Score 6; DB 1; Length 20;
 Best Local Similarity 100.0%; Pred. No. 1.37e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 PT Pred. No. 1.37e+02;
 PS 0; Mismatches 0; Indels 0; Gaps 0;
 CC 0; Mismatches 0; Indels 0; Gaps 0;

RESULT 20
 ID R05141 standard; protein; 20 AA.
 AC R05141;
 DT 09-OCT-1990 (first entry)
 DB 6 garins 11
 KW Peptide epitopic for HIV-1 and HIV-2.
 KW HIV; AIDS; gp41; p24; vaccine.
 OS Synthetic.
 PN EP-371818-A.
 PD 6-JUN-1990.
 PR 30-NOV-1989; 312514.
 PA (WELL) Wellcome Foundation Ltd.
 PI Duncan RJS;
 DR WPI; 90-173163/23.
 PT New Peptides) which bind to antibody specific for HIV -
 PR used for detection of antibody or antigen or for raising
 PR specific antibodies.
 PS Claim 1; Page 12; 13pp; English.
 CC Protein may be used to make test kits for both HIV-1 and
 CC HIV-2 antibodies or antigens.
 SQ Sequence 20 AA;

Query Match 3.6%; Score 6; DB 1; Length 20;
 Best Local Similarity 100.0%; Pred. No. 1.37e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 6 garins 11
 QY 38 QARLNS 43

Tue Jul 13 08:26:43 1999

PT located on each side of a HIV epitope
 PS Claim 2; Page 21, lines 35-37; 27PP; English.
 CC It has an amino acid sequence which corresp. to a naturally occurring
 CC amino acid sequence for an epitope of HIV, and which further has two
 CC Cys residues on each side of the epitope. It is stabilised by a sulphur
 CC bridge between the 2 Cys residues formed by a chemical oxidation step.
 CC Also claimed are peptides having a shorter sequence. It provides
 CC an assay for the detn. of antibodies induced by HIV for use in
 CC diagnostic immunoassay kits. It may also be used as an immunising
 CC component in vaccine compsns. against HIV.
 SQ Sequence 23 AA;

Query Match 3.6%; Score 6; DB 1; Length 23;
 Best Local Similarity 100.0%; Pred. No. 1.37e+02; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 6; Conservative 0; Qy 38 QARLNS 43

RESULT 23
 ID R88186 standard; Protein: 72 AA.
 AC R88186;
 DT 25-JUL-1996 (first entry)
 DE Protein encoded by plasmid PAK559 DNA fragment.
 KW Leader sequence; MI3; insulin precursor; *Saccharomyces cerevisiae*;
 KW strain; YAK580; expression; secretion; cassette; alpha factor;
 KW mouse salivary amylase; yeast; plasma PAK559;
 PT aspartic protease 3; BRL1; KEX2 protease; direct template;
 KW YAK583.
 PA Synthetic.
 PN W0934666-A1.
 PD 21-DEC-1995.
 PR 16-JUN-1995; DK0249.
 PR 16-JUN-1994; DK-000705.
 PR 29-JUL-1994; US 282852.
 PR (NOVO) NOVO-NORDISK AS.
 PT Kjeldsen TB, Vad K;
 DR WPI; 96-049693/05.
 N-PSDB; T0541.
 PT Expression cassette for yeast contd; synthetic leader sequence -
 PT providing high yields of secreted polypeptide encoded by the
 PT cassette, also related vectors and transformed yeast cells
 PS Example 6; Fig 16; 8pp; English.
 CC The present sequence is encoded by a DNA fragment of plasmid
 CC PAK559, which was used as the direct template in the construction
 CC of the MI3 insulin precursor (IP) leader sequences (LS) R88168/69.
 CC The LS are used to express the MI3 IP in *S. cerevisiae* strains
 CC YAK580/83, providing high level expression and secretion. An
 CC expression cassette for the MI3 IP in yeast, comprises 5'-3' a
 CC promoter (P), sequences encoding a signal peptide (SP), a leader
 CC sequence, a processing site (PS) and an optional
 CC terminator sequence. The P can be any P functional in yeast, e.g.
 CC the alpha factor gene P, and the SP is pref. the alpha-factor,
 CC mouse salivary amylase, carboxypeptidase, yeast aspartic
 CC protease 3 or yeast BRL1 SP. The PS is LysArg, ArgLys, ArgArg or
 CC LysLys, for processing by *S. cerevisiae* KEX2 protease.
 SQ Sequence 72 AA;

Query Match 3.6%; Score 6; DB 17; Length 72;
 Best Local Similarity 100.0%; Pred. No. 1.37e-02; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 6; Conservative 0; Qy 14 SAVLSS 19

RESULT 24
 ID W78751 standard; Protein: 124 AA.
 AC W78751; HIV-1 env protein

RESULT 21
 ID R77670 standard; peptide: 20 AA.
 AC R77670;
 DT 22-MAR-1996 (first entry)
 DE Thiol protected peptide 41-2-3GC mimic of HIV-1 epitope.
 KW epitope; presentation; HTLV-1; human T cell lymphotropic virus;
 KW cyclic viral protein epitope;
 KW HIV; immunoreactivity.
 KW HIV; immunoreactivity.

OS Synthetic
 FH Location/Qualifiers
 FT misc_difference 1..3
 FT /note= "enhance the reactivity of the peptide"
 FT 14
 FT modified_site
 FT /note= "thiol protected"
 FT 20
 FT modified_site
 FT /note= "thiol protected, and amidated"
 FT US5439792-A.
 PN 08-AUG-1995.
 PD 02-JUN-1989; 360513.
 PR 02-JUN-1989; US-360513.
 PR 01-JUN-1990; US 532429.
 PR 21-OCT-1993; US-140696.
 PA (GENE) GENETIC SYSTEMS CORP.
 PI Blake J, Cole C, Coleman PF, Monji N, Montana JP;
 DR WPI; 95-283088/37.
 PT Solid phase coated with cyclic viral protein epitope with improved
 PT presentation and increased immuno-reactivity - useful for detecting
 PT HIV antibodies or antigens.
 PT Disclosure; Column 8; 13pp; English.
 PS R77670 mimics a cyclic epitope from human immunodeficiency virus type 2.
 CC The peptide is derived from peptide 41-2-3 (sic). This peptide is is
 CC used in the prepn. of a solid phase coated with cyclic viral protein
 CC epitope with improved presentation and increased immuno-reactivity, useful
 CC for detecting HIV antibodies or antigens. The peptide is synthesised
 CC with 2 Cys residues sep'd. by 3-19 non-Cys residues. The SH gps. of Cys
 CC residues are protected, e.g. with a thiol gp., so that the residue is
 CC resistant to highly acidic cleavage. The protected peptide is immobilised
 CC on a solid phase and the protecting gps. then removed. The solid phase
 CC coated with peptide is then incubated so that a disulphide bridge is
 SQ formed between the deprotected Cys residues.
 Sequence 20 AA;

Query Match 3.6%; Score 6; DB 15; Length 20;
 Best Local Similarity 100.0%; Pred. No. 1.37e+02; 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 6; Conservative 0; Qy 38 QARLNS 43

Db 6 garlins 11
 Qy 38 QARLNS 43

RESULT 22
 ID P91159 standard; peptide: 23 AA.
 AC P91159;
 DT 26-APR-1990 (first entry)
 DE Artificial peptide containing a sequence which comprises an epitope
 DE of HIV peptide; HIV epitope; immunoassay kit; HIV vaccine;
 KW artificial HIV peptide; HIV epitope; immunoassay kit; HIV vaccine;
 KW artificial antigen.
 KW
 FH Location/Qualifiers
 FT region 13..19
 FT /note= "This sequence is specifically claimed."
 PN W09303844-A.
 PD 05-MAY-1989;
 PR 27-OCT-1988; SE0570.
 PR 28-OCT-1987; SE-004185.
 PA (FERD) Ferring AB.
 PI Trophar J, Wahren B, Ruden U;
 PI